

Northern plateau.—Boisé City, Idaho, 25th.

California.—Los Angeles and Princetown, 4th; Sacramento, 9th; San Francisco and Oakland, 25th.

The following instances of damage by lightning have been reported:

Indianapolis, Indiana: the electrical display accompanying the thunder storm of the 11th was very unusual. A building in this city was damaged by the lightning and several persons were stunned.

Austin, Texas: during a thunder storm on the 17th, several objects in this city were struck by lightning.

Montgomery, Alabama: the telephone wires in this city were damaged by lightning during the thunder storm on the night of the 23-24th.

OPTICAL PHENOMENA.

SOLAR HALOS.

Solar halos have been observed in the various districts on the following dates:

New England.—2d to 8th, 10th, 11th, 13th to 15th, 17th to 19th, 21st to 25th, 29th to 31st.

Middle Atlantic states.—1st, 10th to 12th, 16th, 18th, 22d, 25th, 28th.

South Atlantic states.—3d, 4th, 9th, 10th, 12th, 17th to 20th, 22d, 24th, 26th to 28th.

Florida peninsula.—Archer, 24th.

Eastern Gulf states.—18th, 20th, 24th.

Western Gulf states.—3d, 10th, 16th, 18th, 21st, 22d, 25th, 27th, 30th.

Tennessee and Ohio valley.—4th, 9th, 12th, 16th, 17th, 22d to 24th, 26th to 28th, 31st.

Lower lake region.—1st to 3d, 5th, 6th, 10th, 13th, 14th, 16th, 21st, 22d, 24th.

Upper lake region.—1st, 4th, 6th, 8th, 10th, 14th, 16th, 20th, 25th, 26th, 28th, 30th.

Upper Mississippi valley.—2d, 3d, 6th, 7th, 12th to 16th, 21st to 23d, 27th, 29th.

Missouri valley.—5th, 8th, 10th, 11th, 13th, 16th, 22d.

Middle slope.—11th, 14th, 19th, 20th, 23d, 30th.

Southern slope.—Fort Stockton, Texas, 19th.

Middle plateau.—Salt Lake City, Utah, 13th; Nephi, Utah, 22d; Carson City, Nevada, 29th.

Northern plateau.—Boisé City, Idaho, 8th, 13th, 18th.

North Pacific coast region.—Roseburg, Oregon, 13th; Albany, Oregon, 29th, 31st; Bainbridge Island, Washington Territory, 29th, 30th.

California.—San Francisco, 1st, 2d, 3d, 7th, 12th, 17th, 18th, 21st, 25th; Fall Brook, 1st, 11th, 20th; Los Angeles and Oakland, 21st.

LUNAR HALOS.

Lunar halos have been observed in the various districts on the following dates:

New England.—1st, 3d to 6th, 10th to 13th, 17th, 19th.

Middle Atlantic states.—1st, 2d, 4th, 6th, 8th, 10th to 12th, 25th, 31st.

South Atlantic states.—1st, 6th, 8th to 11th.

Florida peninsula.—3d, 5th, 6th, 10th, 12th to 14th.

Eastern Gulf states.—2d, 5th, 9th to 11th.

Western Gulf states.—4th to 6th, 9th to 13th, 30th, 31st.

Rio Grande valley.—Rio Grande City, Texas, 31st.

Tennessee and Ohio valley.—4th, 5th, 9th, 10th, 12th, 13th, 16th, 22d, 30th, 31st.

Lower lake region.—4th, 6th, 10th, 13th.

Upper lake region.—1st, 4th to 7th, 9th, 12th, 13th, 30th.

Extreme northwest.—3d to 6th, 11th.

Upper Mississippi valley.—2d, 3d, 5th to 9th, 14th, 15th.

Missouri valley.—4th to 6th, 8th to 12th, 30th.

Northern slope.—5th to 9th, 12th.

Middle slope.—Fort Elliott, Texas, 5th; Yates Centre, Kansas, and Red Willow, Nebraska, 9th.

Southern slope.—Fort Stockton, Texas, 3d, 7th; Fort Davis, Texas, 3d, 5th, 8th.

Southern plateau.—Wickenburg, Arizona, and El Paso, Texas, 9th; Yuma, Arizona, 1st, 13th, 14th, 21st.

Middle plateau.—Nephi, Utah, 11th; Salt Lake City, Utah, 13th; Carson City, Nevada, 12th, 31st.

Northern plateau.—Lewiston, Idaho, 4th; Spokane Falls, Washington Territory, 7th, 10th, 11th.

North Pacific coast region.—1st, 3d, 7th to 10th, 12th, 13th.

California.—Fall Brook, 1st; San Diego, 1st, 3d; Los Angeles, 12th.

MIRAGE.

Vermillion, Dakota, 12th.

Webster, Dakota, 9th.

Manistique, Michigan, 28th.

Genoa, Nebraska, 9th.

Indianola, Texas, 2d, 13th.

Pretty Prairie, Kansas, 9th, 12th, 26th.

Prof. Cuthbert P. Conrad, of Fayetteville, Arkansas, furnishes the following report:

On the evening of February 26, 1884, a phenomenon known locally as "weather lights" was the precursor of a violent snow storm. I have watched these "weather lights" in this locality for four years, and, while I have lived in five states east of the Alleghanies, have never witnessed similar phenomena elsewhere. The appearance is that of rosy red to white light appearing above the horizon, 5°, 10°, and even 30°, and all the way from northeast around to southwest—sometimes only in the northwest (the most frequent quarter); sometimes first in the northeast, fading out and appearing in northwest, west, or southwest.

These lights invariably precede a change in weather—either rain or snow (*i. e.*, a change invariably follows), but I have not been able to fix upon any definite interval of time.

The Chief Signal Officer desires to state that if others have observed similar phenomena, the reports of such observations are desirable.

MISCELLANEOUS PHENOMENA.

Concerning the phenomenal appearance of the sky at sunrise and sunset, which has been observed for several months past, the following reports for March have been received.

Alabama.—Red sunsets with afterglow were noticed at Auburn, Lee county, and at Tuscumbia, Colbert county, on the 24th and 25th.

Arkansas.—Lead Hill, Boone county, 31st: the red sky at sunrise and sunset has nearly disappeared; a faint display was observed on the morning of the 3d and on the evening of the 25th; on the 2d, 3d, 9th, 11th, and 12th, only a white glare was noticed.

California.—Hydesville, Humboldt county: during March, the unusual colors of the sky were only observed before sunrise and on the morning of the 3d, and on the evening of the 14th.

Dakota.—Webster, Day county: the twilights observed during March were not so bright as those of February, with the exception of the display of the 13th, which was quite brilliant.

Florida.—Limona, Hillsborough county: red sunrise on the 3d.

Archer, Alachua county: red sunsets on the 2d, 15th, 26th; red sunrise on the 16th.

Georgia.—Forsyth, Monroe county: red sunsets 20th, 21st, 26th, 28th.

Indiana.—Vevay, Switzerland county: orange-colored sunrise on the 27th.

Iowa.—Humboldt, Humboldt county: red sunsets on the 3d, 13th, and 14th.

Kansas.—Wellington, Sumner county, 31st: the phenomenal sunset afterglow was observed on all clear evenings during the month, its brilliancy having decreased to a great extent.

Sherlock, Finney county, 31st: the glow at sunrise and sunset was observed several times during the month, but the displays were fainter than those of November and December.

Allison, Decatur county: the glows at sunrise and sunset, observed during March, were less conspicuous than those seen in the previous months.